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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,982	06/15/2005	Yanxin Li	LUNGBJ/107/PC/US	7513
2543 7590 03/27/2007 ALIX YALE & RISTAS LLP 750 MAIN STREET SUITE 1400 HARTFORD, CT 06103			EXAMINER BASICHAS, ALFRED	
			ART UNIT	PAPER NUMBER
			3749	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/538,982

**Applicant(s)**

LI, YANXIN

**Examiner**

Alfred Basichas

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-18,20-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graat (4,334,854) in view of Nakanishi (6,295,937). Graat discloses substantially all of the claimed limitations including, among other things, an autocontrol burner 101 includes a main body, a fuel supplying means, an air blowing means 103, a fuel oil atomizing means 4 and an igniter, wherein it further includes a controller, a motor 104 speed controller and a signal acquisition assembly, in which the fuel supplying means and the air blowing means are connected with the controller via the motor speed

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controller, the signal output port of the signal acquisition assembly is connected with the signal input port of the controller, flow rate of fuel oil output by the fuel supplying means and flow rate of air blown by the air blowing means are adjusted automatically, simultaneously and proportionally by said controller based on preset air/oil ratio (see at least col. 10, lines 37-45). Nevertheless, Graat does not specifically recite the claimed controller arrangement. NaKanishi teaches a fuel/air ratio and air blower controller as recited in the claims (see at least col. 3, lines 35-49). Nakanishi states that such an arrangement is advantageous in providing stable combustion (see at least col. 2, lines 40-45). Accordingly, it would have been obvious to one of ordinary skill in that art at the time of invention to incorporate the controller arrangement taught by Nakanishi into the invention disclosed by Graat, so as to provide for stable combustion.

4. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida (5,049,063) in view of Nakanishi (6,295,937). Kishida discloses substantially all of the claimed limitations including, among other things, an autocontrol burner 2 includes a main body, a fuel supplying means 12, an air blowing means 44, a fuel oil atomizing means and an igniter, wherein it further includes a controller 8, 16, a motor 43 speed controller and a signal acquisition assembly, in which the fuel supplying means and the air blowing means are connected with the controller via the motor speed controller, the signal output port of the signal acquisition assembly is connected with the signal input port of the controller, flow rate of fuel oil output by the fuel supplying means and flow rate of air blown by the air blowing means are adjusted automatically, simultaneously and proportionally by said controller based on preset air/oil ratio (see at

least col. 5, lines 35-54). Nevertheless, Kishida does not specifically recite the claimed controller arrangement. Nakanishi teaches a fuel/air ratio and air blower controller as recited in the claims (see at least col. 3, lines 35-49). Nakanishi states that such an arrangement is advantageous in providing stable combustion (see at least col. 2, lines 40-45). Accordingly, it would have been obvious to one of ordinary skill in that art at the time of invention to incorporate the controller arrangement taught by Nakanishi into the invention disclosed by Kishida, so as to provide for stable combustion.

#### ***Allowable Subject Matter***

5. Claims 16, 18, and 20-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form ***including all of the limitations of the base claim and any intervening claims.***

#### ***Response to Arguments***

6. Applicant's arguments with respect to the claim have been considered but are moot in view of the new grounds of rejection.

#### ***Conclusion***

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Basichas whose telephone number is 571 272 4871. The examiner can normally be reached on Monday through Friday during regular business hours.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center telephone number is 571 272 3700.

March 20, 2007

  
Alfred Basichas  
Primary Examiner